Access DB# 89405

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Kahsay Habte Examiner #: 78271 Date: Mar. 19, 2003
Art Unit: 1624 Phone Number 308-4717 Serial Number: 09/980,593
Mail Box and Bldg/Room Location: 4E-18 Results Format Preferred (circle): PAPER DISK E-MAIL
4E-12
If more than one search is submitted, please prioritize searches in order of need. MEJ

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

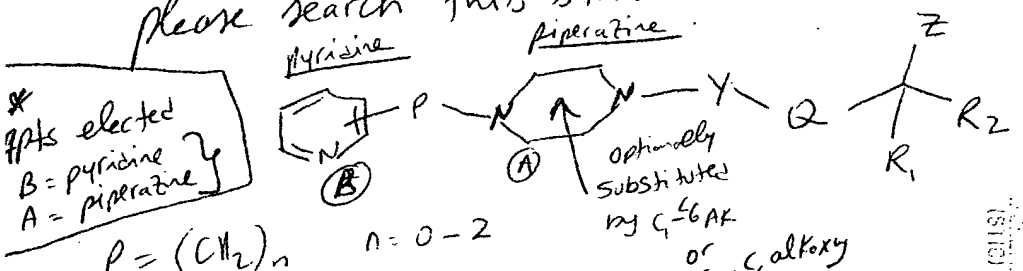
Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: 5/31/2000 * Please see attached

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search this structure



* pts elected
B = pyridine
A = piperazine

P = $(CH_2)_n$ n: 0-2

P = alkene, alkyne upto six carbon

Y = CO or SO_2

Q = $C(R_6R_7)$, $C(R_6)(R_7)-CH_2-$, $-N(R_6)-$, $N(R_6)-CH_2-$

R_6 = upto C_{10} Aryl
upto C_9 heteroaryl

R_7 = H or C_1-C_6 AK

Z = C(=O)-NH-OH
= N(OH)-C(=O)H
= COOH
= CONHOH
= N(OH)CHO
N(OH)COR

****

STAFF USE ONLY

Searcher: Shep Jane
Searcher Phone #: 305-4499
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 3/20/03
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: _____

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN _____
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

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FILE 'HCAPLUS' ENTERED AT 10:23:53 ON 20 MAR 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 20 Mar 2003  VOL 138 ISS 12
FILE LAST UPDATED: 19 Mar 2003  (20030319/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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=> d stat que l16
L3              STR
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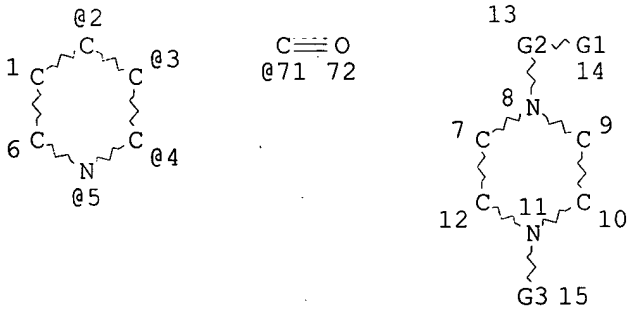


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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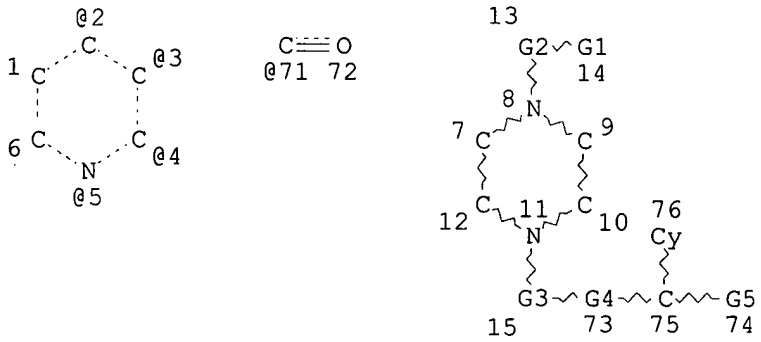

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NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
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=> d ibib abs hitstr l16 1

L16 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:636067 HCAPLUS
DOCUMENT NUMBER: 135:195577
TITLE: Preparation of arylpiperazines and arylpiperidines as metalloproteinase inhibiting agents
INVENTOR(S): Barlaam, Bernard Christophe; Dowell, Robert Ian; Newcombe, Nicholas John; Tucker, Howard; Waterson, David
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001062751	A1	20010830	WO 2001-GB616	20010215

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1261595 A1 20021204 EP 2001-905883 20010215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
NO 2002003951 A 20020820 NO 2002-3951 20020820
PRIORITY APPLN. INFO.: EP 2000-400469 A 20000221
WO 2001-GB616 W 20010215
OTHER SOURCE(S): MARPAT 135:195577
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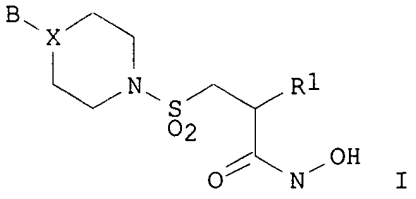
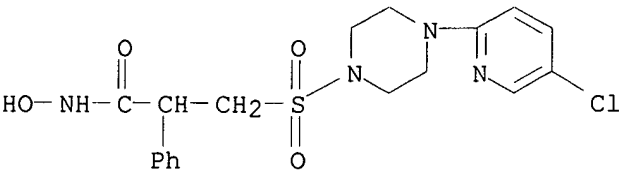


I

AB The title compds. [I; B = (un)substituted Ph, 2-pyridyl, 2-pyridyloxy, 4-pyrimidinyl; X = C, N; R1 = (trimethyl-1-hydantoin)alkyl, (un)substituted Ph, phenylalkyl, etc.], useful as metalloproteinase inhibitors, esp. as inhibitors of MMP 13, were prepd. E.g., a 5-step synthesis of I [B = 4-FC6H4; X = CH; R1 = CH2Ph] was given.

IT **357187-74-7P 357187-78-1P 357187-79-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arylpiperazines and arylpiperidines as metalloproteinase inhibiting agents)

RN 357187-74-7 HCAPLUS
CN Benzeneacetamide, .alpha.-[[[4-(5-chloro-2-pyridinyl)-1-piperazinyl]sulfonyl]methyl]-N-hydroxy- (9CI) (CA INDEX NAME)



RN 357187-78-1 HCAPLUS
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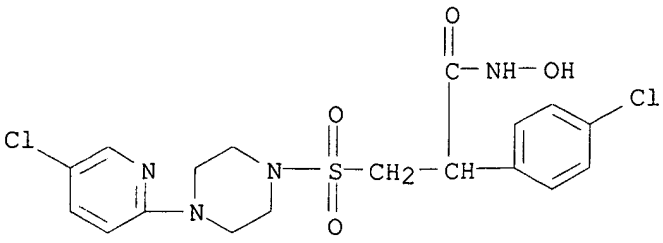

RN 357187-79-2 HCAPLUS
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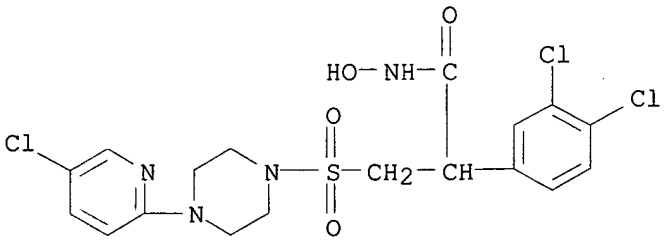
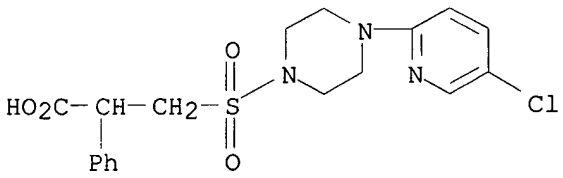


IT **357187-91-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of arylpiperazines and arylpiperidines as metalloproteinase inhibiting agents)
RN 357187-91-8 HCAPLUS
CN Benzeneacetic acid, .alpha.-[[[4-(5-chloro-2-pyridinyl)-1-piperazinyl]sulfonyl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l16 2

L16 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:636059 HCAPLUS
DOCUMENT NUMBER: 135:211053
TITLE: Preparation of N-[2-(piperidino- or piperazino)sulfonylethyl]-N-hydroxyformamides as inhibitors of metalloproteinases
INVENTOR(S): Barlaam, Bernard Christophe; Dowell, Robert Ian; Finlay, Maurice Raymond Verschoyle; Newcombe, Nicholas John; Tucker, Howard; Waterson, David
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001062742	A1	20010830	WO 2001-GB624	20010215
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1261590	A1	20021204	EP 2001-905885	20010215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002022628	A1	20020221	US 2001-788687	20010221
NO 2002003956	A	20021007	NO 2002-3956	20020820

PRIORITY APPLN. INFO.: EP 2000-400467 A 20000221
WO 2001-GB624 W 20010215

OTHER SOURCE(S): MARPAT 135:211053
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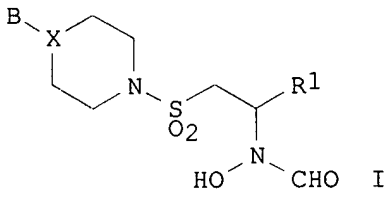
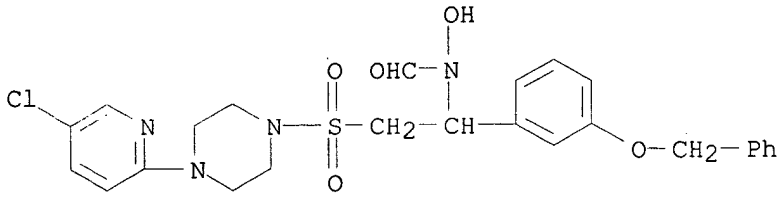


AB The title compds. [I; B = (un)substituted Ph, 2-pyridyl, 2-pyridyloxy, 4-pyrimidinyl; X = CH, N; R1 = phenylalkyl, pyridylalkyl, pyrimidinylalkyl, etc.], useful as metalloproteinase inhibitors, esp. as inhibitors of MMP 13 (no data given), were prepd. E.g., a 4-step synthesis of I [B = 4-BrC6H4; X = N; R1 = 3-(pyrimidin-2-yl)propyl] was given. The compds. I are effective at 0.5-30 mg/kg/day.

IT **357645-52-4P 357645-55-7P 357645-57-9P 357645-58-0P 357646-20-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-[2-(piperidino- or piperazino)sulfonylethyl]-N-hydroxyformamides as inhibitors of metalloproteinases)

RN 357645-52-4 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-[3-(phenylmethoxy)phenyl]ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 357645-55-7 HCAPLUS
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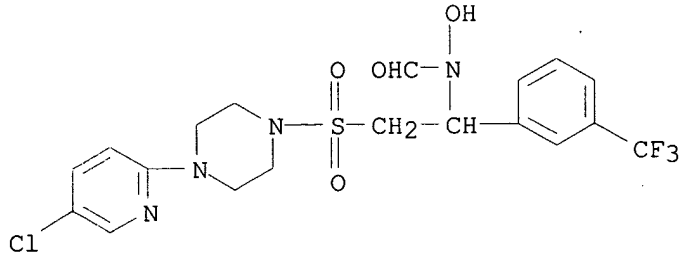

RN 357645-57-9 HCAPLUS
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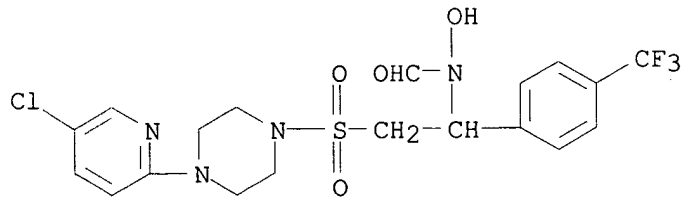

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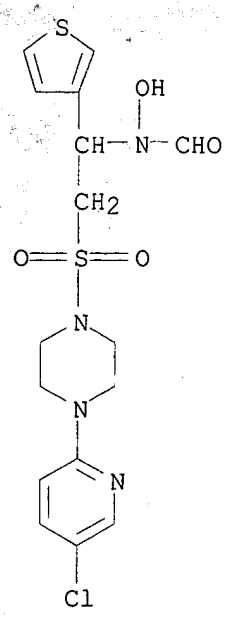

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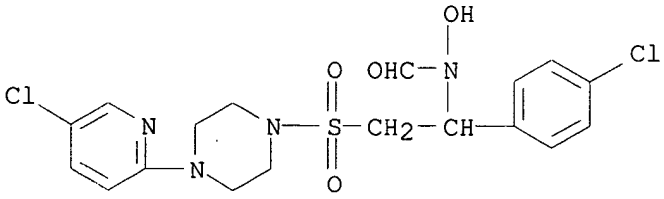

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l16 3

L16 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:161258 HCAPLUS
DOCUMENT NUMBER: 132:207849
TITLE: Preparation of arylpiperazines as metalloproteinase inhibiting agents (MMP)
INVENTOR(S): Barlaam, Bernard Christophe; Newcombe, Nicholas John; Tucker, Howard; Waterson, David
PATENT ASSIGNEE(S): Zeneca Limited, UK; Zeneca-Pharma Sa
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012478	A1	20000309	WO 1999-GB2801	19990825
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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AU 9955247	A1	20000321	AU 1999-55247	19990825
BR 9913255	A	20010522	BR 1999-13255	19990825
EP 1109787	A1	20010627	EP 1999-941751	19990825
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EE 200100106	A	20020617	EE 2001-20010010	19990825
JP 2002523493	T2	20020730	JP 2000-567511	19990825
NO 2001001023	A	20010425	NO 2001-1023	20010228

PRIORITY APPLN. INFO.:
EP 1998-402144 A 19980831
EP 1999-401351 A 19990604
WO 1999-GB2801 W 19990825

OTHER SOURCE(S): MARPAT 132:207849
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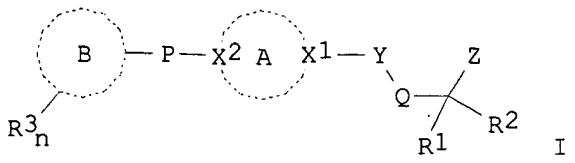

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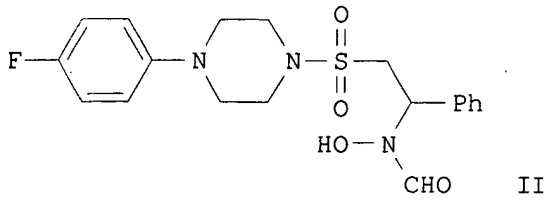


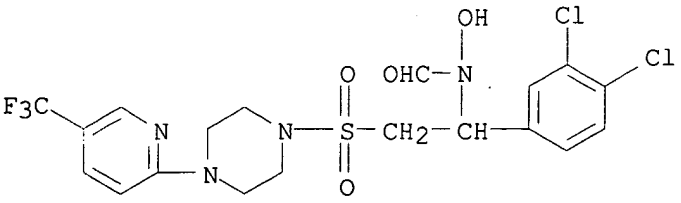
II

AB The title compds. [I; B = monocyclic or bicyclic alkyl, aryl, etc.; R3 = H, halo, NO2. etc.; n = 1-3; P = (CH2)n (wherein n = 0-2), alkene, alkyne, etc.; A = (un)substituted 5-7 membered aliph. ring; X1, X2 = N, C, where a ring substituent on ring A is a oxo group that is preferably adjacent a ring N atom; Y = SO2, CO; Z = CONHOH, Y = CO and Q = CR6R7, CR6R7CH2, NR6, NR6CH2 (wherein R6 = H, alkyl, aralkyl, etc.; R7 = H, alkyl; R7 together with R6 forms a carbocyclic or heterocyclic spiro 5-7 membered ring, the latter contg. at least one heteroatom selected from N, O, S); Z = CONHOH, Y = SO2 and Q = CR6R7, CR6R7CH2; Z = N(OH)CHO and Q = CHR6, CHR6CH2, NR6CH2; R1 = H, alkyl, cycloalkyl, etc.; R2 = H, alkyl, aryl, etc.], useful as metalloproteinase inhibitors (no data), esp. as inhibitors of MMP 13, in treating arthritis and atherosclerosis, were prepd. E.g., a multi-step synthesis of the title piperazine II was given. Compds. I are effective at 0.5-30 mg/kg/day.

IT **260438-29-7P 260438-30-0P 260438-32-2P**
260438-37-7P 260439-09-6P 260439-10-9P
260439-11-0P 260439-17-6P 260439-18-7P
260439-31-4P 260439-32-5P 260439-80-3P
260440-05-9P 260440-10-6P 260440-19-5P
260440-23-1P 260440-57-1P 260440-84-4P
260440-89-9P 260440-99-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arylpiperazines as metalloproteinase inhibiting agents (MMP))

RN 260438-29-7 HCAPLUS

CN Piperazine, 1-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]-4-[5-(trifluoromethyl)-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 260438-30-0 HCAPLUS

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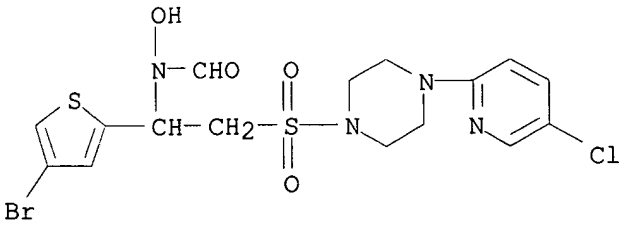

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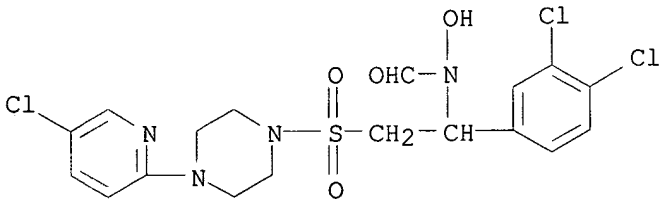
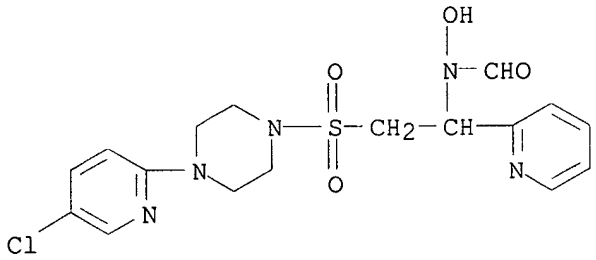
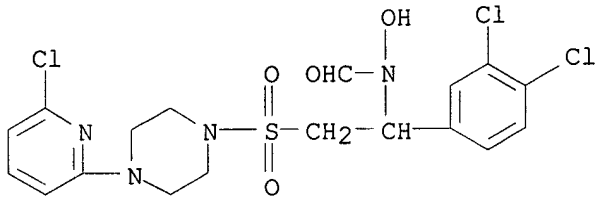
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



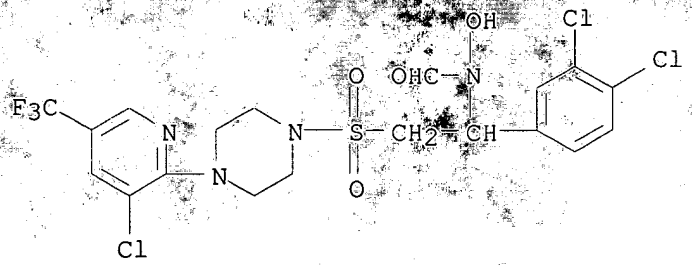
RN 260438-37-7 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(2-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 260439-09-6 HCAPLUS
CN Piperazine, 1-(6-chloro-2-pyridinyl)-4-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 260439-10-9 HCAPLUS
CN Piperazine, 1-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-4-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 260439-11-0 HCAPLUS
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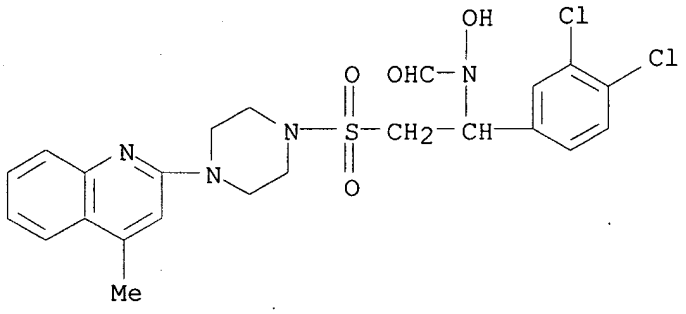
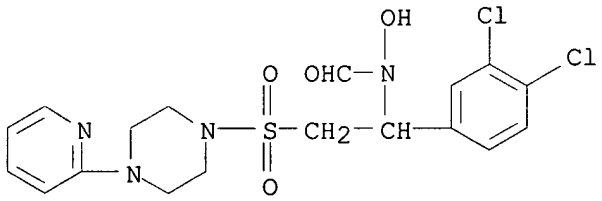
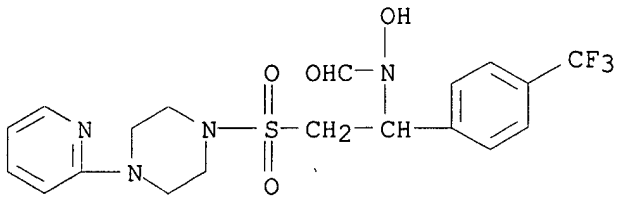


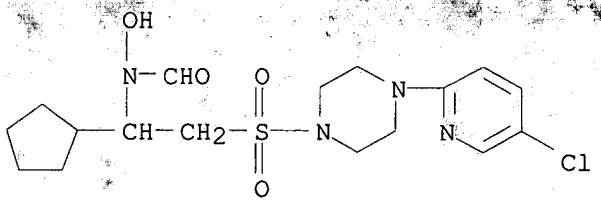
RN 260439-17-6 HCAPLUS
CN Piperazine, 1-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]-4-(2-pyridinyl)- (9CI) (CA INDEX NAME)



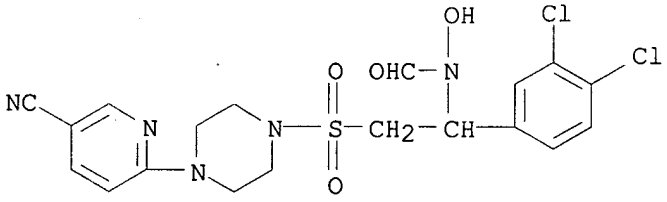
RN 260439-18-7 HCAPLUS
CN Piperazine, 1-[[2-(formylhydroxyamino)-2-[4-(trifluoromethyl)phenyl]ethyl]sulfonyl]-4-(2-pyridinyl)- (9CI) (CA INDEX NAME)



RN 260439-31-4 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-cyclopentyl-2-(formylhydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

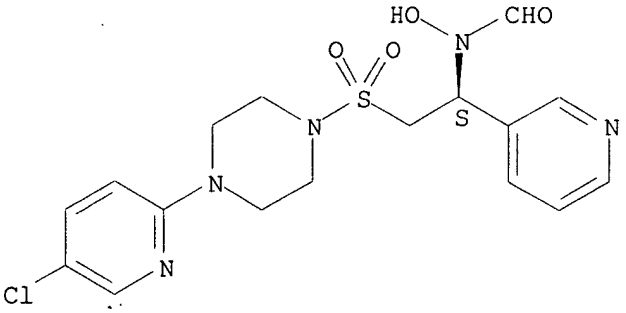


RN 260439-32-5 HCAPLUS
CN Piperazine, 1-(5-cyano-2-pyridinyl)-4-[[2-(3,4-dichlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

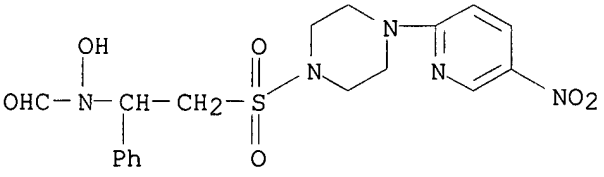


RN 260439-80-3 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[(2S)-2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

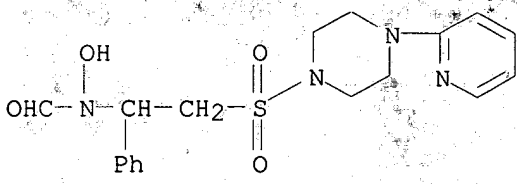
Absolute stereochemistry.



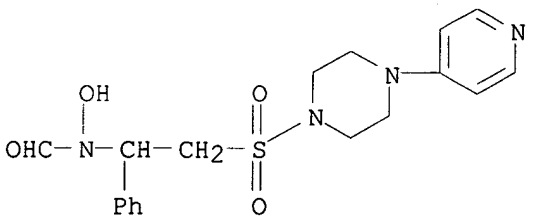
RN 260440-05-9 HCAPLUS
CN Piperazine, 1-[[2-(formylhydroxyamino)-2-phenylethyl]sulfonyl]-4-(5-nitro-2-pyridinyl)- (9CI) (CA INDEX NAME)



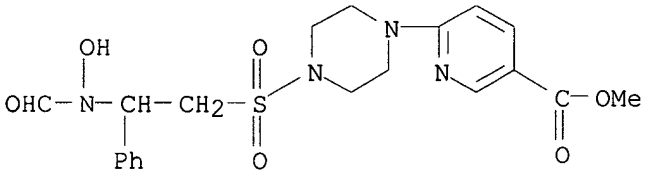
RN 260440-10-6 HCAPLUS
CN Piperazine, 1-[[2-(formylhydroxyamino)-2-phenylethyl]sulfonyl]-4-(2-pyridinyl)- (9CI) (CA INDEX NAME)



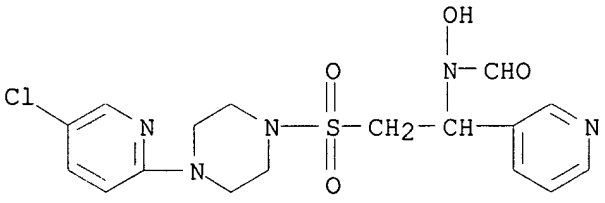
RN 260440-19-5 HCAPLUS
CN Piperazine, 1-[[2-(formylhydroxyamino)-2-phenylethyl]sulfonyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)



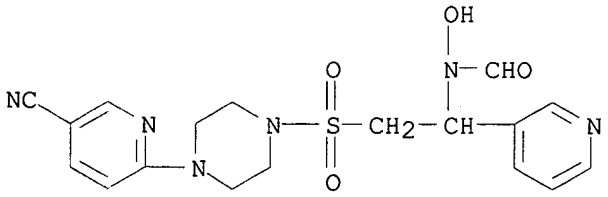
RN 260440-23-1 HCAPLUS
CN 3-Pyridinecarboxylic acid, 6-[4-[[2-(formylhydroxyamino)-2-phenylethyl]sulfonyl]-1-piperazinyl]-, methyl ester (9CI) (CA INDEX NAME)



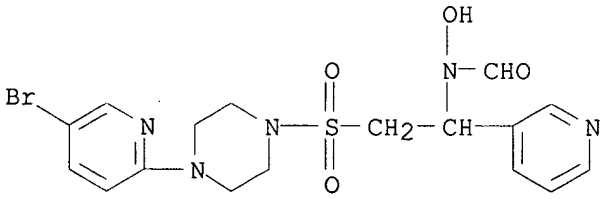
RN 260440-57-1 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



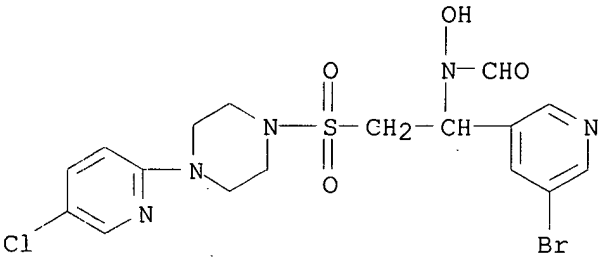
RN 260440-84-4 HCAPLUS
CN Piperazine, 1-(5-cyano-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



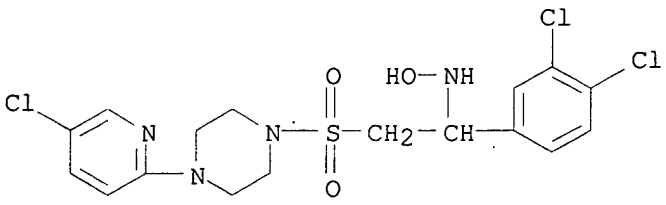
RN 260440-89-9 HCAPLUS
CN Piperazine, 1-(5-bromo-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 260440-99-1 HCAPLUS
CN Piperazine, 1-[[2-(5-bromo-3-pyridinyl)-2-(formylhydroxyamino)ethyl]sulfonyl]-4-(5-chloro-2-pyridinyl)- (9CI) (CA INDEX NAME)



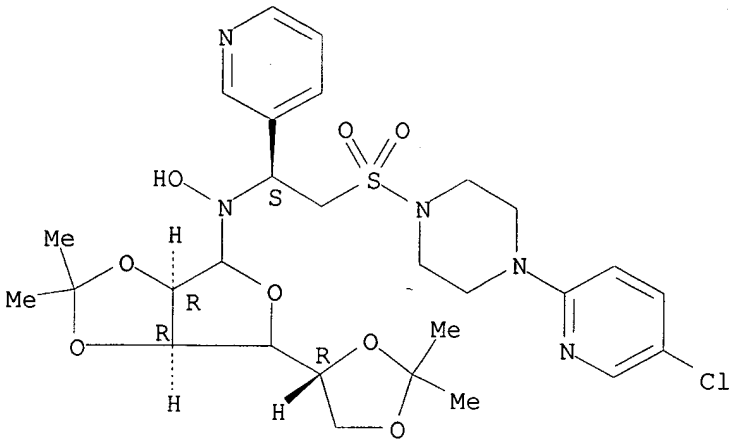
IT **260441-75-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of arylpiperazines as metalloproteinase inhibiting agents (MMP))
RN 260441-75-6 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(3,4-dichlorophenyl)-2-(hydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



IT **260441-62-1P 260441-63-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of arylpiperazines as metalloproteinase inhibiting agents (MMP))

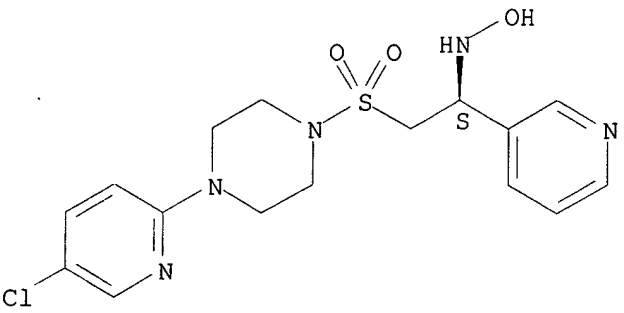
RN 260441-62-1 HCAPLUS
CN Piperazine, 1-[[(2S)-2-[[(4.xi.)-2,3:5,6-bis-O-(1-methylethylidene)-D-ribo-hexofuranosyl]hydroxyamino]-2-(3-pyridinyl)ethyl]sulfonyl]-4-(5-chloro-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 260441-63-2 HCAPLUS
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[(2S)-2-(hydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

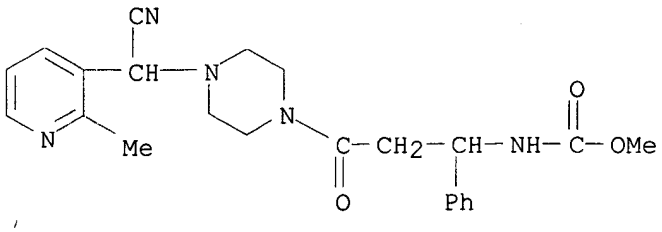
=> d ibib abs hitstr l16 4

L16 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:6879 HCAPLUS
DOCUMENT NUMBER: 124:176036
TITLE: Design, Synthesis, and Structure-Activity Relationship Studies of Novel 1-[(1-Acyl-4-piperidinyl)methyl]-1H-2-methylimidazo[4,5-c]pyridine Derivatives as Potent, Orally Active Platelet-Activating Factor Antagonists
AUTHOR(S): Carceller, Elena; Merlos, Manuel; Giral, Marta; Balsa, Dolors; Garcia-Rafanell, Julian; Forn, Javier
CORPORATE SOURCE: Research Center, J. Uriach Cia. S.A., Barcelona, 08026, Spain
SOURCE: Journal of Medicinal Chemistry (1996), 39(2), 487-93
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Replacement of the polar head of the previously reported series of 1-acyl-4-[(2-methyl-3-pyridyl)cyanomethyl]piperazines with a 2-methylimidazo[4,5-c]pyridine group led to the identification of a new series of 1-[(1-acyl-4-piperidyl)methyl]-1H-2-methylimidazo[4,5-c]pyridine derivs. as potent, orally active platelet-activating factor (PAF) antagonists. On the basis of the general structure-activity relationship trends found for the acyl substituent in our earlier series, five groups of compds. were tested, i.e., diaryl- or alkylarylpropanoyl derivs., their 3-hydroxy-substituted analogs, and urea, carbamate and amino acid derivs. The optimal compd. UR-12670, bearing the 3,3-diphenylpropanoyl moiety, exhibited very high in vitro and in vivo potency (IC50 = 0.0076 .mu.M for the in vitro PAF-induced platelet aggregation assay, ID50 = 0.0086 mg/kg for the in vivo PAF-induced hypotension test in normotensive rats, and ID50 = 0.092 mg/kg po and 0.0008 mg/kg i.v. for the PAF-induced mortality test in mice). UR-12670 also showed long duration of activity. It gave 100% protection against PAF-induced mortality in mice 7 h after i.v. administration of a single dose of 1 mg/kg and also provided 100% inhibition of PAF-induced aggregation in dog whole blood 6 h after i.v. administration of the same dose. The lead structure UR-12670 was selected for in-depth pharmacol. evaluation.

IT **149692-09-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(structure activity relationship of (piperidinyl)methyl]imidazo[4,5-c]pyridines as platelet activating factor antagonists)

RN 149692-09-1 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, methyl ester (9CI) (CA INDEX NAME)



=> d ibib abs hitstr l16 5

L16 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:380148 HCAPLUS
DOCUMENT NUMBER: 122:160682
TITLE: Cyanomethylpyridine derivatives as PAF antagonists and 5-lipoxygenase inhibitors
INVENTOR(S): Carceller, Elena; Jimenez, Pere J.; Almansa, Carmen; Bartoli, Javier
PATENT ASSIGNEE(S): J. Uriach y Cia. S.A., Spain
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 617032	A1	19940928	EP 1994-104612	19940323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
ES 2062943	A1	19941216	ES 1993-591	19930323
ES 2062943	B1	19951116		
CA 2118831	AA	19940924	CA 1994-2118831	19940311
JP 07002841	A2	19950106	JP 1994-76436	19940323
US 5420131	A	19950530	US 1994-216583	19940323

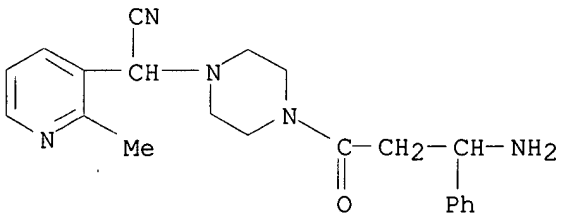
PRIORITY APPLN. INFO.: ES 1993-591 19930323
OTHER SOURCE(S): MARPAT 122:160682
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to cyanomethylpyridine derivs. I [Y = N or CH; R1 = F, Cl; R2 = H or C1-4 alkyl; m = 0, 1 or 2; n = 0 or 1; p = 0 or 1; A = covalent bond, CONHCH(Ar), NHCH(Ar), SO2NHCH(Ar), NHCONHCH(Ar), or OCONHCH(Ar); and when p = 1, A can also = CH(Ar)NH; Ar = Ph or Ph substituted .gtoreq. 1 of halo, C1-4 alkyl, C1-4 alkoxy, or CF3]. The compds. are platelet activating factor (PAF) antagonists and/or 5-lipoxygenase inhibitors, and are useful for treating a variety of diseases. For example, coupling of p-(2-quinolylmethoxy)phenylacetic acid with 1-(3-amino-3-phenylpropionyl)-4-[(2-methyl-3-pyridyl)cyanomethyl]piperazine using DCC and 1-hydroxybenzotriazole in DMF gave 43% title compd. II, a preferred compd. The IC50 of II for inhibition of PAF-induced hypotension in normotensive rats was 0.036 mg/kg i.v. Twelve addnl. syntheses, addnl. biol. tests (inhibition of PAF-induced platelet aggregation, and inhibition of LTB4 prodn.), and 6 example formulations are given.

IT **149691-83-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation; prepn. of cyanomethylpyridine derivs. as PAF antagonists and 5-lipoxygenase inhibitors)

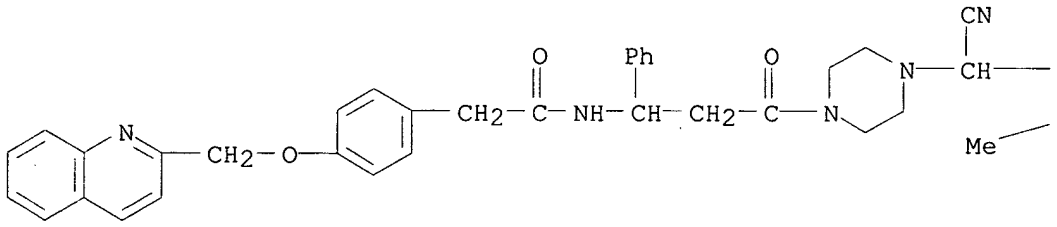
RN 149691-83-8 HCAPLUS
CN 1-Piperazineacetonitrile, 4-(3-amino-1-oxo-3-phenylpropyl)-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)



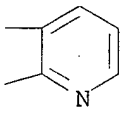
IT **161180-94-5P 161180-95-6P 161180-96-7P 161180-97-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of cyanomethylpyridine derivs. as PAF antagonists and 5-lipoxygenase inhibitors)

RN 161180-94-5 HCAPLUS
CN Benzeneacetamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-4-(2-quinolinylmethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

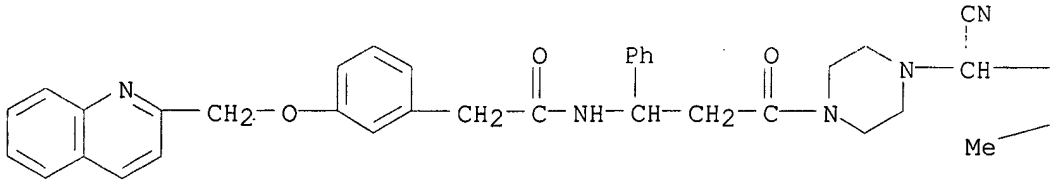


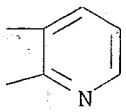
PAGE 1-B



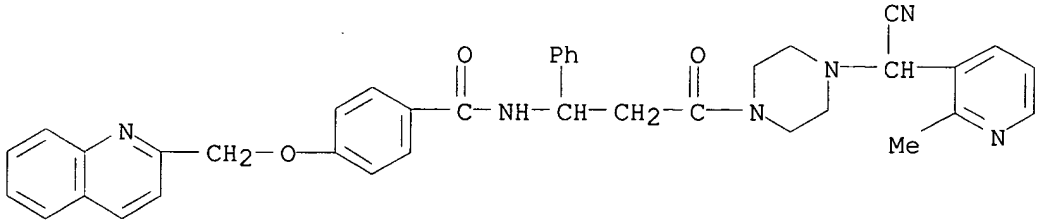
RN 161180-95-6 HCAPLUS
CN Benzeneacetamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-3-(2-quinolinylmethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

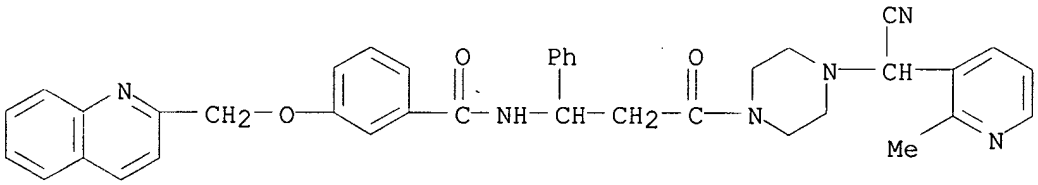




RN 161180-96-7 HCAPLUS
CN Benzamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-4-(2-quinolinylmethoxy)- (9CI) (CA INDEX NAME)

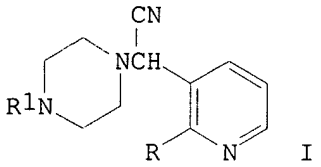


RN 161180-97-8 HCAPLUS
CN Benzamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-3-(2-quinolinylmethoxy)- (9CI) (CA INDEX NAME)



=> d ibib abs hitstr l16 6

L16 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:106931 HCAPLUS
DOCUMENT NUMBER: 120:106931
TITLE: Synthesis and structure-activity relationships of 1-acyl-4-((2-methyl-3-pyridyl)cyanomethyl)piperazines as PAF antagonists
AUTHOR(S): Carceller, Elena; Merlos, Manuel; Giral, Marta; Almansa, Carmen; Bartroli, Javier; Garcia-Rafanell, Julian; Forn, Javier
CORPORATE SOURCE: Chem. Lab., J. Uriach e Cia.S.A., Barcelona, 08026, Spain
SOURCE: Journal of Medicinal Chemistry (1993), 36(20), 2984-97
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

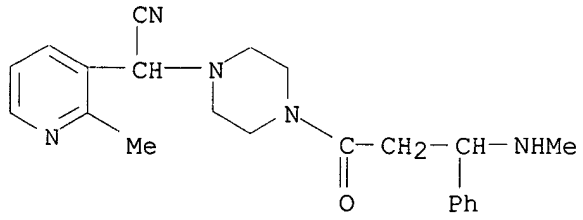


I

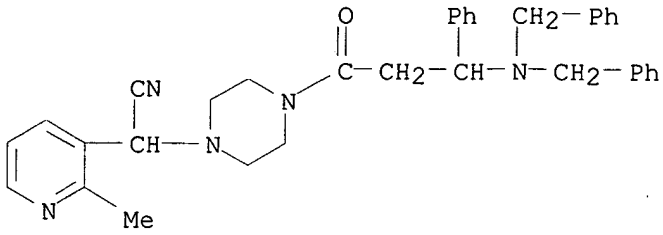
AB Title compds., e.g. I [R = Me, R1 = Ph2CHXCH2CO, PhCR2R3CH2CO, R4NHCHPhCO; X = CH2, CH2CH2, NH, NCHO, NAc, NSO2Me, O, S(O), SO2; R2 = OH, CO2Et, F, R3 = Ph, Me, CF3, 3-pyridyl; R4 = PhO2C, PhCH2O2C, MeO2C, EtO2C, Me2CHCH2O2C, Me3CO2C, H2NCO, pyrrolidinocarbonyl, Bz, 3-pyridylcarbonyl, 3-furylcarbonyl, 2-piperazinylcarbonyl, Ac, Me, PhSO2, MeSO2, H, Ph, PhCH2, 3-pyridylmethyl, H2C:CHCH2, HC.tplbond.CCH2], second generation (cyanomethyl)piperazines with increased oral activity were prepd. and evaluated in vitro in a platelet aggregation factor (PAF)-induced platelet aggregation assay and in vivo in a PAF-induced hypotension test in normotensive rats. Oral activity was ascertained through a PAF-induced mortality test in mice. I (R = Me) showed an order of magnitude or greater improvement in the oral ID50 test compared with I (R = H). Three different types of acyl substituents of similar potency emerge from this work: R1 = Ph2CHNHCH2CO, HOCR3PhCH2CO, and R4NHCHPhCH2CO. The most interesting compds., I (R = Me, R1 = Ph2CHNHCH2CO) (II) (UR-12460) and I (R = Me, R1 = MeO2CNHCHPhCH2CO) (UR-12519) (III) compare favorably with WEB-2086. II and III were also tested in active anaphylactic shock and endotoxin-induced mortality tests. On the basis of these data and addnl. pharmacol. development, II and III were selected for clin. testing.

IT **149692-22-8 149692-25-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(platelet aggregation factor antagonistic activity of)

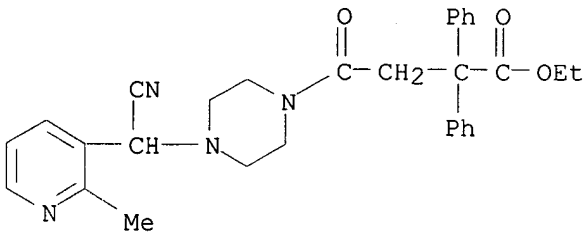
RN 149692-22-8 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[3-(methylamino)-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)



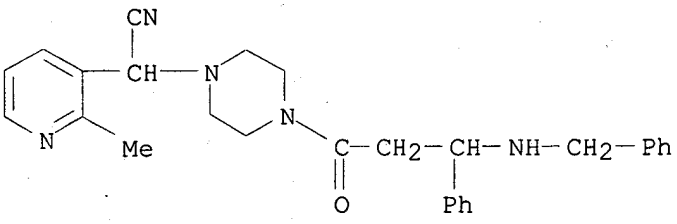
RN 149692-25-1 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[3-[bis(phenylmethyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)



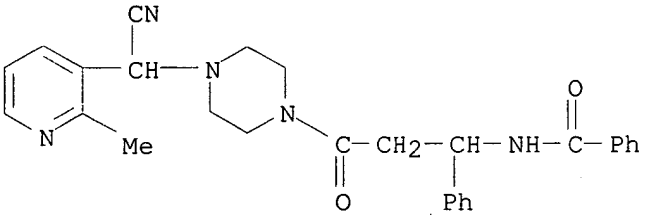
IT **149691-77-0P 149691-84-9P 149691-85-0P**
149691-86-1P 149692-10-4P 149692-11-5P
149692-12-6P 149692-13-7P 149692-14-8P
149692-15-9P 149692-16-0P 149692-17-1P
149692-18-2P 149692-20-6P 149692-21-7P
149692-24-0P 149692-26-2P 149692-27-3P
149692-28-4P 149692-29-5P 149692-30-8P
149692-31-9P 149692-41-1P 150812-47-8P
150812-48-9P 150812-49-0P 150812-50-3P
150812-51-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and platelet aggregation factor antagonistic activity of)
RN 149691-77-0 HCAPLUS
CN 1-Piperazinebutanoic acid, 4-[cyano(2-methyl-3-pyridinyl)methyl]-.gamma.-oxo-.alpha.,.alpha.-diphenyl-, ethyl ester (9CI) (CA INDEX NAME)



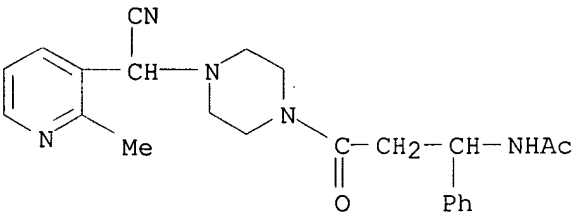
RN 149691-84-9 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-[(phenylmethyl)amino]propyl]- (9CI) (CA INDEX NAME)



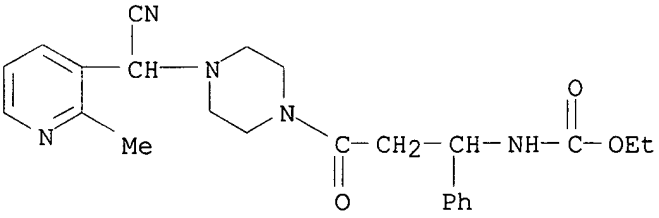
RN 149691-85-0 HCAPLUS
CN Benzamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)



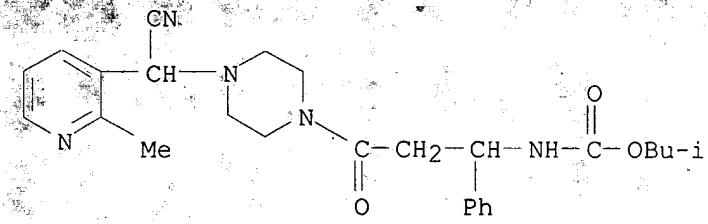
RN 149691-86-1 HCAPLUS
CN Acetamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)



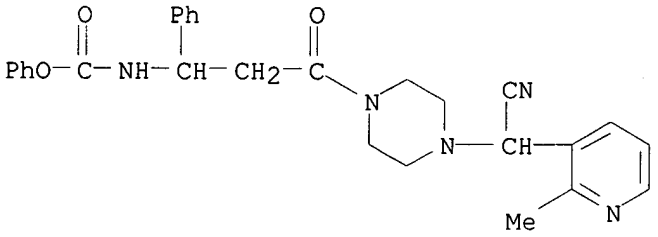
RN 149692-10-4 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, ethyl ester (9CI) (CA INDEX NAME)



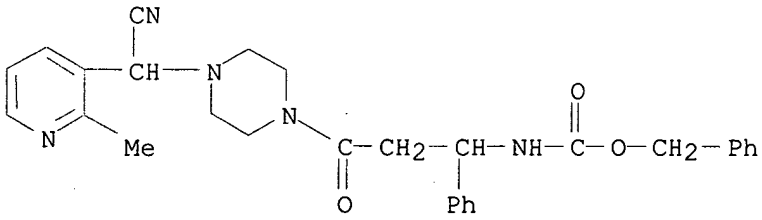
RN 149692-11-5 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



RN 149692-12-6 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, phenyl ester (9CI) (CA INDEX NAME)



RN 149692-13-7 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 149692-14-8 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-[4-(trifluoromethyl)phenyl]propyl]-, methyl ester (9CI) (CA INDEX NAME)

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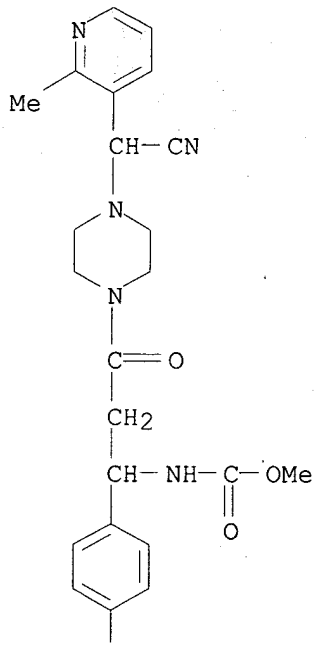
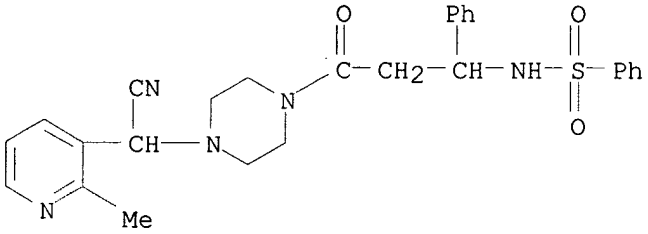
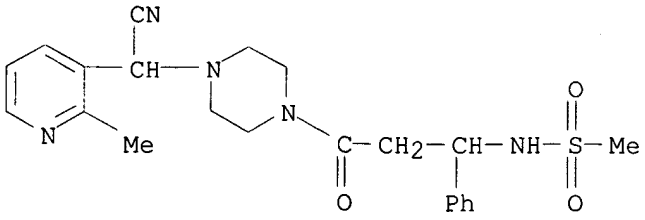


PAGE 2-A

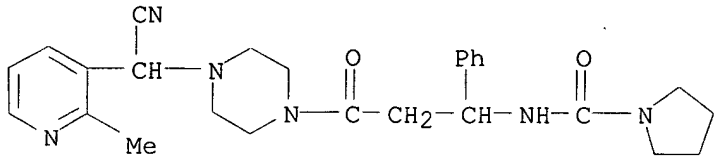
RN 149692-15-9 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-[(phenylsulfonyl)amino]propyl]- (9CI) (CA INDEX NAME)



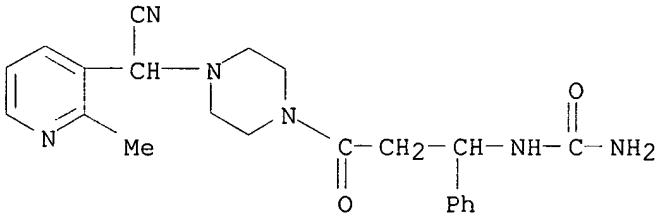
RN 149692-16-0 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[3-[(methylsulfonyl)amino]-1-oxo-3-phenylpropyl]- (9CI) (CA INDEX NAME)



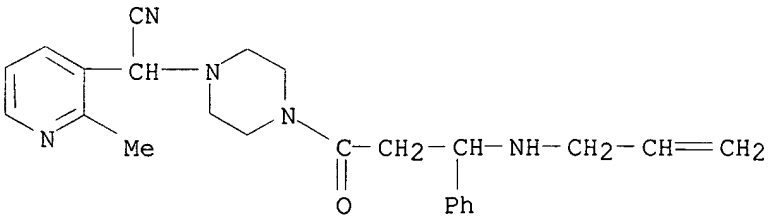
RN 149692-17-1 HCAPLUS
CN 1-Pyrrolidinecarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)



RN 149692-18-2 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[3-[(aminocarbonyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)

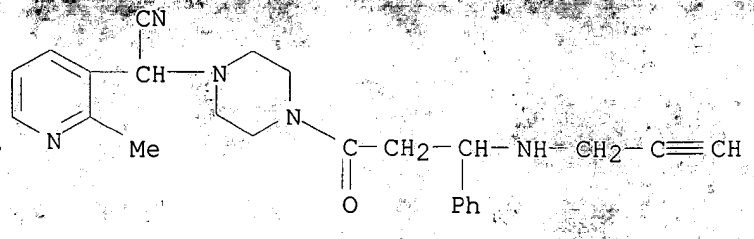


RN 149692-20-6 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-(2-propenylamino)propyl]-, trihydrochloride (9CI) (CA INDEX NAME)

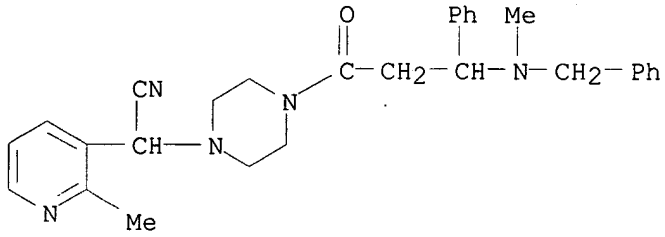


● 3 HCl

RN 149692-21-7 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-(2-propynylamino)propyl]- (9CI) (CA INDEX NAME)

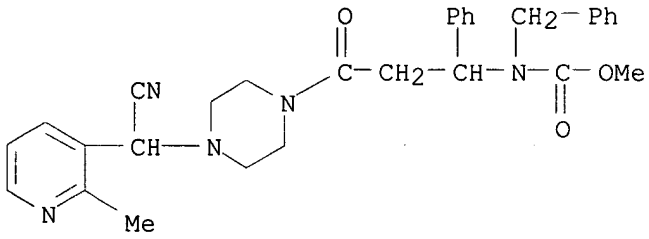


RN 149692-24-0 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[3-[methyl(phenylmethyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)-, dihydrochloride (9CI) (CA INDEX NAME)

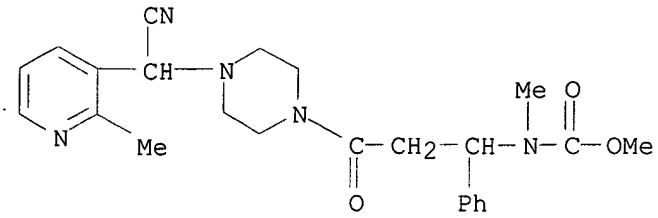


● 2 HCl

RN 149692-26-2 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl](phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 149692-27-3 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]methyl-, methyl ester (9CI) (CA INDEX NAME)



RN 149692-28-4 HCAPLUS
CN 3-Pyridinecarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-

piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)

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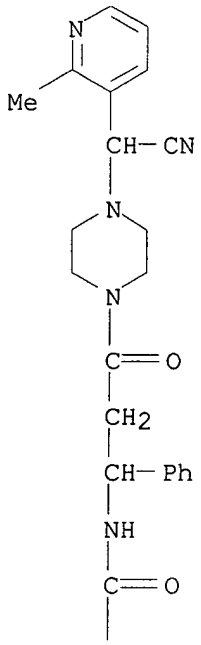

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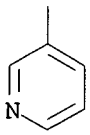
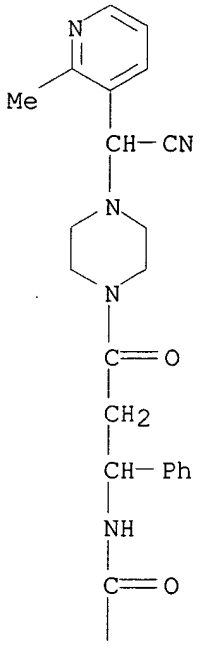
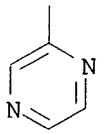


RN 149692-29-5 HCAPLUS
CN Pyrazinecarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)

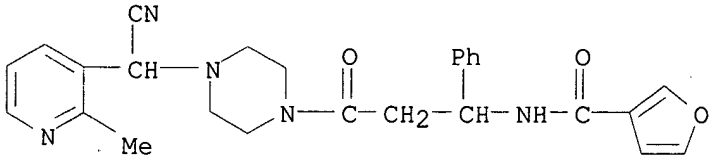
PAGE 1-A



PAGE 2-A

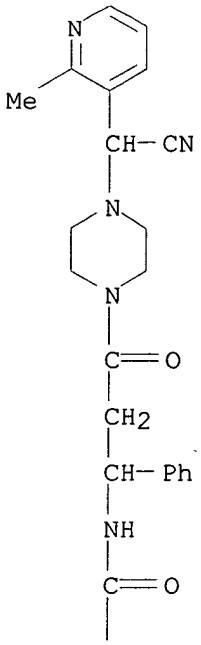


RN 149692-30-8 HCAPLUS
CN 3-Furancarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)



RN 149692-31-9 HCAPLUS
CN 3-Pyridinecarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-1,2-dihydro-2-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



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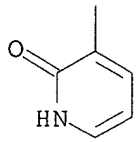
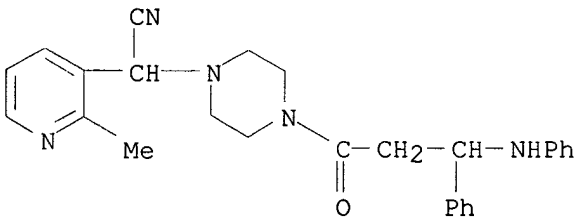


RN 149692-41-1 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-(phenylamino)propyl]- (9CI) (CA INDEX NAME)



RN 150812-47-8 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[4-(3-hydroxy-2-pyridinyl)-1,4-dioxo-3-phenylbutyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)

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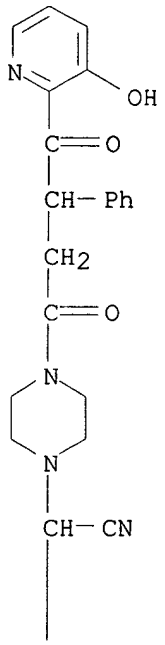

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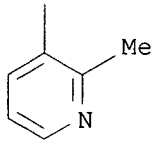
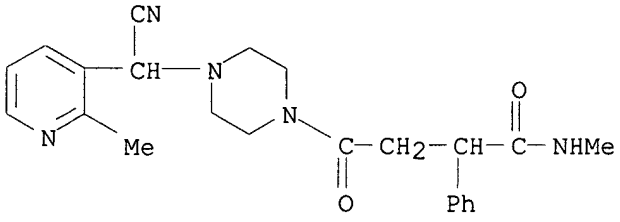
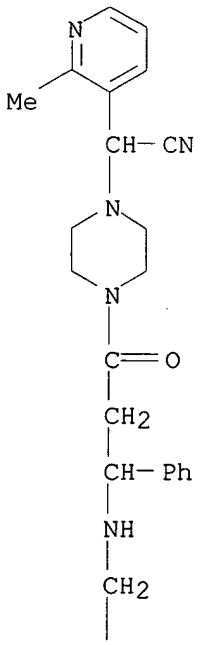


RN 150812-48-9 HCAPLUS
CN 1-Piperazinebutanamide, 4-[cyano(2-methyl-3-pyridinyl)methyl]-N-methyl-.gamma.-oxo-.alpha.-phenyl- (9CI) (CA INDEX NAME)



RN 150812-49-0 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-[(3-pyridinylmethyl)amino]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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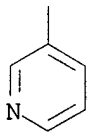
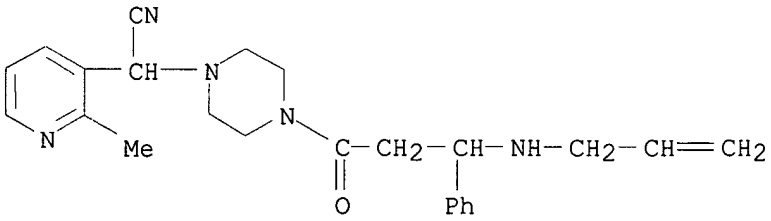
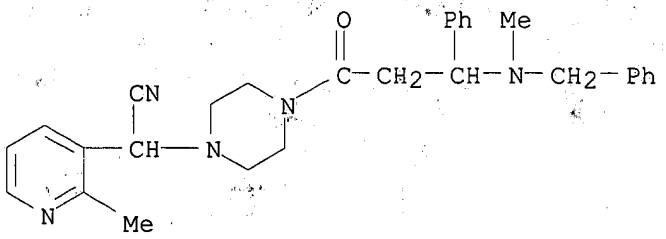


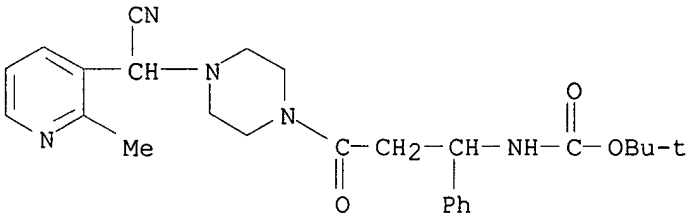
RN 150812-50-3 HCAPLUS
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-(2-propenylamino)propyl]- (9CI) (CA INDEX NAME)



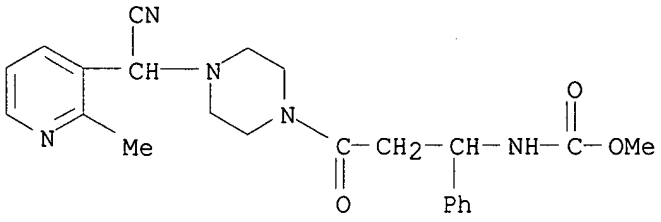
RN 150812-51-4 HCAPLUS
CN 1-Piperazineacetonitrile, 4-[3-[methyl(phenylmethyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)



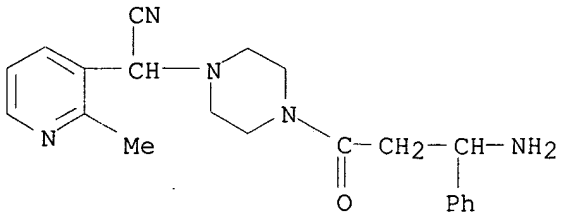
IT **149691-82-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., deprotection, and platelet aggregation factor antagonistic activity of)
RN 149691-82-7 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT **149692-09-1P**, UR 12519
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., platelet aggregation factor antagonistic activity, and toxicity of)
RN 149692-09-1 HCAPLUS
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-, methyl ester (9CI) (CA INDEX NAME)



IT **149691-83-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., reactions, and platelet aggregation factor antagonistic activity of)
RN 149691-83-8 HCAPLUS
CN 1-Piperazineacetonitrile, 4-(3-amino-1-oxo-3-phenylpropyl)-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)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NH2
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Ph

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  This file supports REG1stRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

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L17           0 L15

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FILE 'REGISTRY' ENTERED AT 10:25:36 ON 20 MAR 2003
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STRUCTURE FILE UPDATES:   19 MAR 2003  HIGHEST RN 500101-42-8
DICTIONARY FILE UPDATES:  19 MAR 2003  HIGHEST RN 500101-42-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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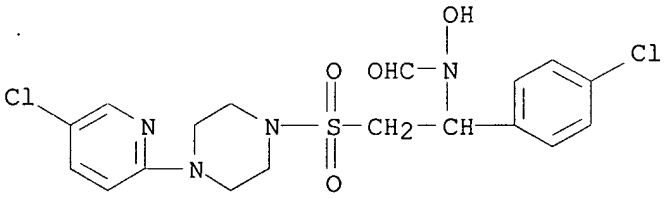
L15 ANSWER 1 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 357646-20-9 REGISTRY
CN Piperazine, 1-[[2-(4-chlorophenyl)-2-(formylhydroxyamino)ethyl]sulfonyl]-4-(5-chloro-2-pyridinyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H20 Cl2 N4 O4 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:211053

L15 ANSWER 2 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 357645-58-0 REGISTRY
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(3-thienyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)
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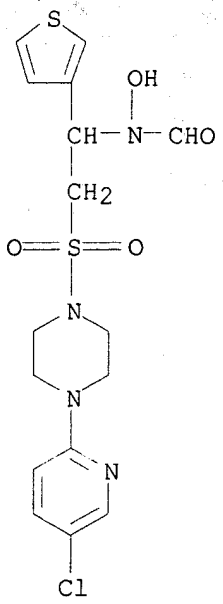
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:211053

L15 ANSWER 6 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 357187-91-8 REGISTRY
CN Benzeneacetic acid, .alpha.-[[[4-(5-chloro-2-pyridinyl)-1-piperazinyl]sulfonyl]methyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
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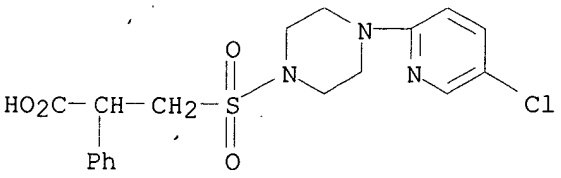
SR CA
LC STN Files: CA, CAPLUS



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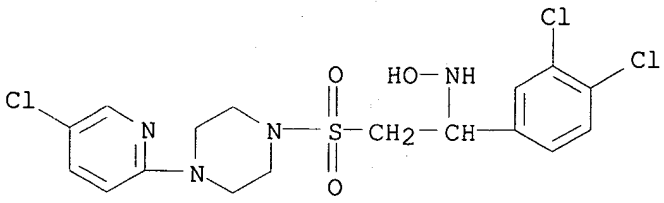
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:195577

L15 ANSWER 10 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 260441-75-6 REGISTRY
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(3,4-dichlorophenyl)-2-(hydroxyamino)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD

MF C17 H19 Cl3 N4 O3 S
SR CA
LC STN Files: CA, CAPLUS



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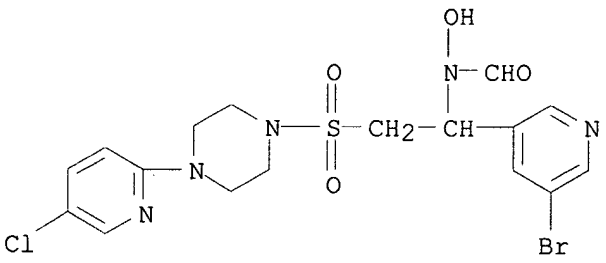
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:207849

L15 ANSWER 13 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 260440-99-1 REGISTRY
CN Piperazine, 1-[[2-(5-bromo-3-pyridinyl)-2-(formylhydroxyamino)ethyl]sulfonyl]-4-(5-chloro-2-pyridinyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H19 Br Cl N5 O4 S
SR CA
LC STN Files: CA, CAPLUS



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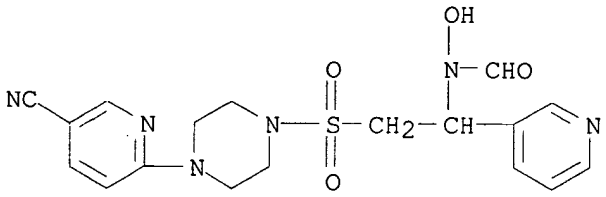
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:207849

L15 ANSWER 15 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 260440-84-4 REGISTRY
CN Piperazine, 1-(5-cyano-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H20 N6 O4 S
SR CA
LC STN Files: CA, CAPLUS



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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:207849

L15 ANSWER 21 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 260439-80-3 REGISTRY
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[(2S)-2-(formylhydroxyamino)-2-(3-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)
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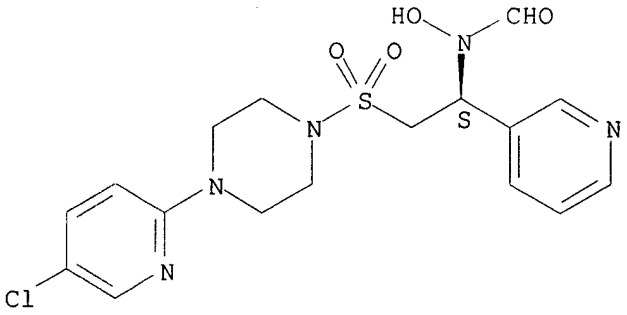
MF C17 H20 Cl N5 O4 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



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1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:207849

L15 ANSWER 29 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 260438-37-7 REGISTRY
CN Piperazine, 1-(5-chloro-2-pyridinyl)-4-[[2-(formylhydroxyamino)-2-(2-pyridinyl)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)
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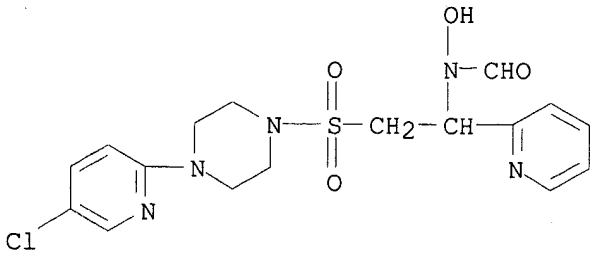
SR CA
LC STN Files: CA, CAPLUS



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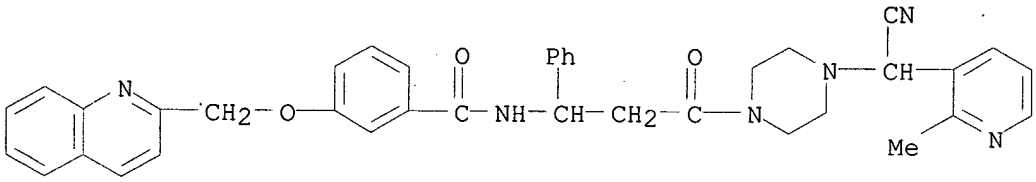
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:207849

L15 ANSWER 33 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 161180-97-8 REGISTRY
CN Benzamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-3-(2-quinolinylmethoxy)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C38 H36 N6 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



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1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 122:160682

L15 ANSWER 37 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 150812-51-4 REGISTRY
CN 1-Piperazineacetonitrile, 4-[3-[methyl(phenylmethyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)
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MF C29 H33 N5 O
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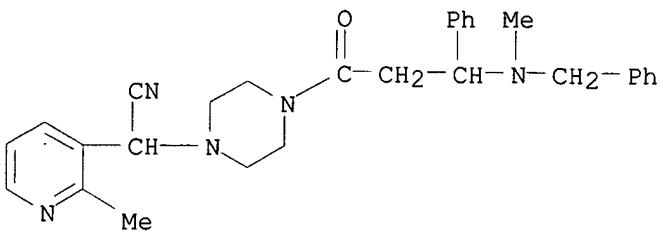
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

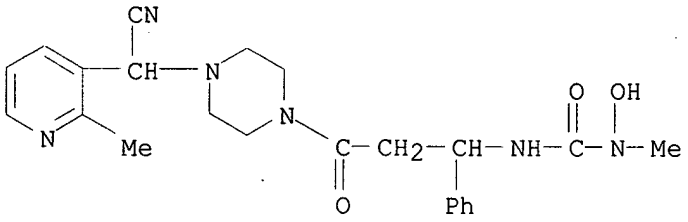


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:106931

L15 ANSWER 42 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-45-5 REGISTRY
CN 1-Piperazineacetonitrile, 4-[3-[[(hydroxymethylamino)carbonyl]amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C23 H28 N6 O3
SR CA
LC STN Files: CA, CAPLUS



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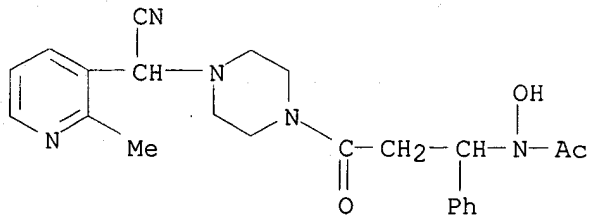
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 119:139266

L15 ANSWER 45 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-42-2 REGISTRY
CN Acetamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]-N-hydroxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C23 H27 N5 O3
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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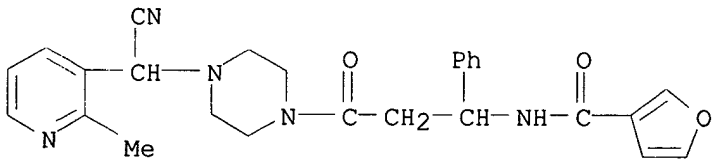
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 119:139266

L15 ANSWER 50 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-30-8 REGISTRY
CN 3-Furancarboxamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C26 H27 N5 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



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2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:106931

REFERENCE 2: 119:139266

L15 ANSWER 55 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-25-1 REGISTRY
CN 1-Piperazineacetonitrile, 4-[3-[bis(phenylmethyl)amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)
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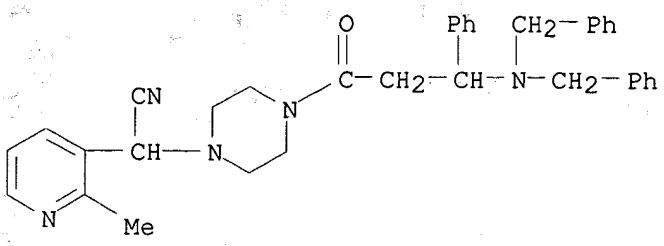
MF C35 H37 N5 O
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



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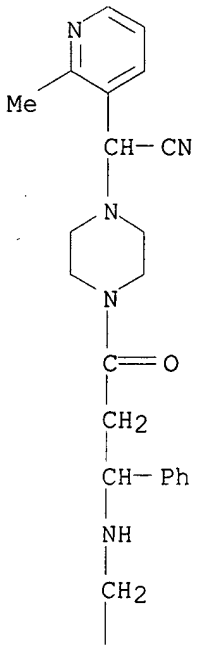
REFERENCE 1: 120:106931

REFERENCE 2: 119:139266

L15 ANSWER 60 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-19-3 REGISTRY
CN 1-Piperazineacetonitrile, .alpha.-(2-methyl-3-pyridinyl)-4-[1-oxo-3-phenyl-3-[(2-pyridinylmethyl)amino]propyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C27 H30 N6 O
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



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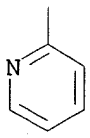

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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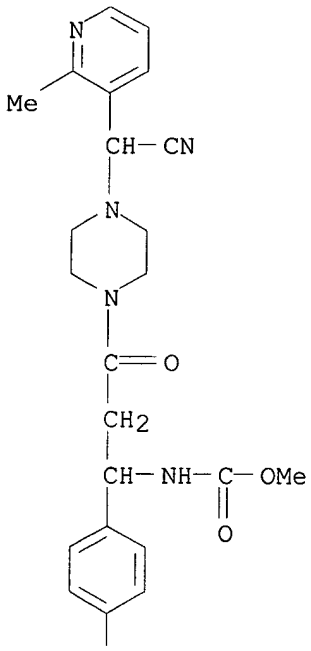
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 119:139266

L15 ANSWER 65 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149692-14-8 REGISTRY
CN Carbamic acid, [3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-[4-(trifluoromethyl)phenyl]propyl]-, methyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C24 H26 F3 N5 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A



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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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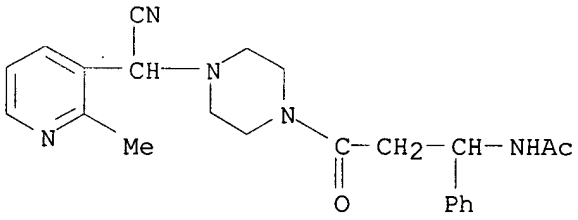
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:106931

REFERENCE 2: 119:139266

L15 ANSWER 71 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 149691-86-1 REGISTRY
CN Acetamide, N-[3-[4-[cyano(2-methyl-3-pyridinyl)methyl]-1-piperazinyl]-3-oxo-1-phenylpropyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C23 H27 N5 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



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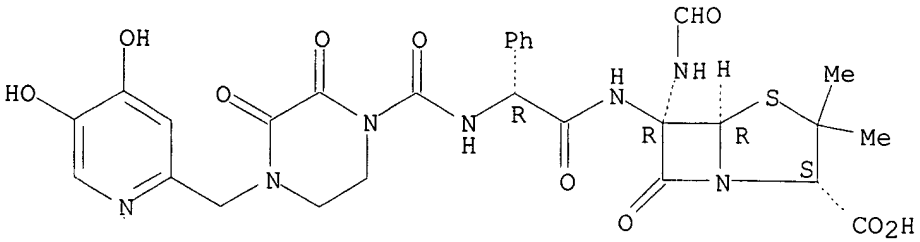
REFERENCE 1: 120:106931

REFERENCE 2: 119:139266

L15 ANSWER 77 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 121118-99-8 REGISTRY
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[[4-[(4,5-dihydroxy-2-pyridinyl)methyl]-2,3-dioxo-1-piperazinyl]carbonyl]amino]phenylacetyl]amino]-6-(formylamino)-3,3-dimethyl-7-oxo-, monosodium salt, [2S-[2.alpha.,5.alpha.,6.beta.(S*)]]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C28 H29 N7 O10 S . Na
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
CRN (121102-21-4)

Absolute stereochemistry.



● Na

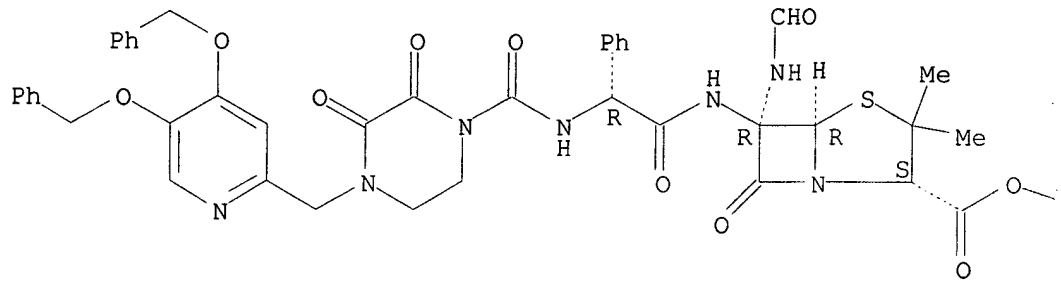
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39092

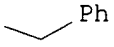
L15 ANSWER 78 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 121102-36-1 REGISTRY
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[[4-[[4,5-bis(phenylmethoxy)-2-pyridinyl]methyl]-2,3-dioxo-1-piperazinyl]carbonyl]amino]phenylacetyl]amino]-6-(formylamino)-3,3-dimethyl-7-oxo-, phenylmethyl ester, [2S-[2.alpha.,5.alpha.,6.beta.(S*)]]-(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C49 H47 N7 O10 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



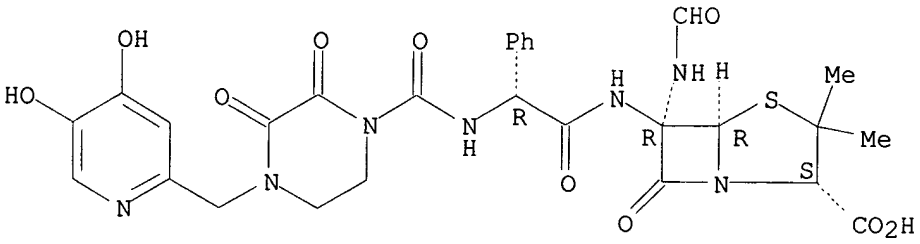
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39092

L15 ANSWER 80 OF 80 REGISTRY COPYRIGHT 2003 ACS
RN 121102-21-4 REGISTRY
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[[4-[(4,5-dihydroxy-2-pyridinyl)methyl]-2,3-dioxo-1-piperazinyl]carbonyl]amino]phenylacetyl]amino]-6-(formylamino)-3,3-dimethyl-7-oxo-, [2S-[2.alpha.,5.alpha.,6.beta.(S*)]]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C28 H29 N7 O10 S
CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39092